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ABSTRACT

Driver licensing, the only state program with the opportunity for routine personal contact with every driver, has unmatched potential for both general and specific countermeasures to the problem of drunk driving. General countermeasures apply to large groups of drivers prior to the occurrence of any infraction. They may be considered basically preventive in nature and consistent with the view that drunk driving is a societal problem that should be dealt with at the societal level. License-related general countermeasures include minimum age requirements for driver licensure, special provisions for young drivers, drinking age laws, special reviews for driver licensing, alcohol education through license manuals and tests, per se laws, and implied consent laws. Special countermeasures apply to the offender and come into play after an infraction has occurred. They are more consistent with the view that drunk driving is a personal decision and that the offender should be punished and/or rehabilitated or re-educated. Specific countermeasures related to licensing include license revocation, limited driving privileges, medical review, and habitual offender statutes. Research opportunities exist in the areas of interaction among general countermeasures, licensing as a process of education, and the effectiveness of license revocation and limited driving privileges. (Author/YLB)

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# LICENSING AND OTHER CONTROLS OF THE DRINKING DRIVER

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# LICENSING AND OTHER CONTROLS OF THE DRINKING DRIVER


## ABSTRACT

Because driver licensing is the only State program that has the opportunity for routine personal contact with every driver, it has unmatched potential for both general and specific countermeasures. General countermeasures apply to large groups of driver prior to the occurrence of any infraction. They may be considered basically preventive in nature and thus consistent with the view that drunk driving is a societal problem that should be dealt with at the societal level.

General countermeasures that are license-related include minimum age requirements for driver licensure; special provisions for young drivers, e.g., lower thresholds for driver improvement measures, stricter limits on alcohol use, and curfew laws; minimum purchase/drinking laws; special reviews for driver licensure; alcohol education through license manuals and tests; per se laws; and implied consent laws.

Specific countermeasures apply to the offender and come into play only after an infraction has occurred. They are more consistent with the view that drunk driving is a personal decision and that the offender should be punished and/or rehabilitated or re-educated. Specific countermeasures that are related to licensing include license revocation, limited driving privileges, medical review, and habitual offender statutes.

The available research evidence for each of these countermeasures is discussed, but ultimately effective control of the drinking driver must include measures that extend well beyond what can be implemented through driver licensing programs and deal with the larger societal context in which drunk driving occurs.


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## Introduction

The drinking driver is perhaps the most intractable problem in highway safety today. Everyone is well aware of the magnitude of the costs in lives and money, but thus far truly cost effective solutions have evaded us.

There are two major approaches to the problem of drunk driving. The first is based on the belief that drinking and driving is an individual decision and that the person who chooses to engage in this behavior should be dealt with as a criminal and/or as a person in need of rehabilitation or at least re-education. The second stems from the view that drinking and driving occur in a larger context and that modifications in that context may lead to a reduction in the probability of the undesired behavior.

Although the two views of drunk driving are not mutually exclusive, there is a basic philosophical difference between them. If drunk driving is an individual decision, then the solutions lie at the level of the individual, but if it is considered the natural consequence of a complex interaction of causal factors, many of which are societal in nature, then at least some of the solution lies in societal action. This latter view typifies the public health philosophy that advocates community ownership and responsibility for major public health problems (Barry, 1975).

It is probably fair to say that historically and up to the present time the emphasis has been on the individual or fault-based approach.

Once drunk driving was recognized as a hazard, the major response was to view the offender as a criminal. Drunkenness generally was considered a moral offense, and the person was dealt with accordingly. Gradually the health/medical view of alcoholism evolved, and its influence was subsequently felt in the traffic safety field (Jones and Joscelyn, 1978).

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As a result, educational and rehabilitative programs were also developed for the drinking driver offender. Countermeasures developed within this individual-decision framework usually come into play after the infraction has occurred.

More recently there has been growing interest in some of the measures that may be considered more general or preventive in nature, although there has been no reduction in the legal or health/medical countermeasures for the offender and, with few exceptions, the more systems-oriented countermeasures have not received strong support. Some of the possible preventive measures include stricter regulation of advertising of alcoholic beverages, stricter controls on the portrayal of drinking in the media, dram shop liability, increase in age of purchase/drinking, increased taxes on alcoholic beverages, and greater availability of alternative transportation. There is often strong opposition to such measures, with a corresponding promotion of measures that focus on the legal/educational approach based on the belief that drinking and driving is a personal decision and that the individual is responsible for that decision regardless of what other influences may be brought to bear.

Many of the countermeasures within each of these frameworks may be considered regulatory or administrative in nature, and they are often administered by the licensing authority. Some of these will be described below along with whatever research evidence is available.

## General or Societal-Based Countermeasures

Countermeasures that are societal-based are those that do not target individuals but rather apply generally to large groups, in some cases the entire population, before any infraction has occurred. They include



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minimal age requirements for driver licensure, special provisions for young drivers, drinking age laws, special reviews for driver licensing, driver license manuals and tests, per se laws, and implied consent laws.

Age of Licensing

Each state has the authority to establish the minimum driving age. In most states a license may be obtained at the age of 16, although in the majority of cases there is a requirement that an approved driver education course be completed successfully.

The age of initial licensing is of interest to the total control of drinking and driving for two reasons. First, it has been argued that early licensing increases the number of younger drivers on the road and that the availability of free driver education contributes significantly to this increase (Robertson and Zador, 1978; Robertson, 1980). Others have presented evidence that the extent of increase in young licensed drivers associated with free driver education is not nearly so great as earlier asserted but that there is a positive relationship found. The direction of causality, if any, is not clear (Seaver et al., 1979).

Second, other data show that alcohol is involved in a significant proportion of the fatal and injury crashes of these young drivers. Based on data from the Fatal Accident Reporting System (FARS) and the National Accident Sampling System (NASS), Fell (1982) has calculated that 36.6 percent of 16 and 17-year-old drivers in fatal crashes have some measured level of alcohol, and for nighttime fatal crashes the rate is 53.6 percent. For injury crashes the overall rate is 8.4 percent, increasing to 20.7 percent for nighttime injury crashes. While these proportions are somewhat lower than those found for other age groups, most notably age 18 through 25, it should be noted that any alcohol consumption by 16 and 17-year olds



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is likely to have been illegal. It may be argued that the later licensing of drivers would reduce this alcohol-related morbidity and mortality.

A counter argument can also be made, namely, that young drivers get into trouble with alcohol because they are inexperienced in drinking and inexperienced in driving (Carlson, 1972). When the two types of inexperience are combined in a potentially hazardous environment, it is not surprising that this group experiences higher crash rates. This view would argue that driving age and drinking age should be separated to the extent possible so that the driving skill (or, conversely, the drinking skill) could be mastered before introducing the other task. Recent increases in drinking age tend to confirm this view to the extent that they reduce alcohol-related crashes in younger drivers and do not appreciably increase them for drivers at or above the legal drinking age (Wagenaar, 1983).

There are no studies that specifically focus on the interaction of driver education requirements, driving age, and drinking age, although available data should suffice to address this question.

Special Provisions for Young Drivers

In recognition of the higher crash rates experienced by young drivers, many states place special restrictions on young beginning drivers. Indeed, the requirement for driver education for licensure prior to the age of 18 was one attempt to insure that these young beginning drivers were better prepared. Other restrictions include lower thresholds for driver improvement measures; stricter limits on alcohol use by young drivers; and curfew laws, that is, restrictions on the hours during which driving may occur, e.g., 6 am to 6 pm or daylight hours only, thus omitting traditional drinking hours (see Federal Highway Safety Administration, 1984).

Lower threshold for driver improvement measures. In some states,

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young drivers who incur infractions may be dealt with more harshly under provisional license statutes. For example, they may be required to attend a driver improvement clinic after receiving only one citation or they may be placed on probation or have their license suspended for an infraction that would result only in points on the record of an older driver.

Liner (1979) summarizes state laws on probationary licensing and licensing of minors. However, the recent flurry of drunk driving legislation has included measures aimed at youthful offenders, and some of the provisions described by Liner have undoubtedly been modified.

Special laws re: alcohol and young drivers. More recently there have been moves to place special restrictions on young drivers regarding the use of alcohol. In addition to raising the legal age of purchase, there is a move to increase the penalties for young drinking drivers above and beyond those for older offenders. For example, in North Carolina the recently enacted Safe Roads Act provides for a one year license revocation for any minor buying or aiding/abetting another minor in the purchase of alcohol. It further provides for a mandatory license revocation for 45 days or until the 18th birthday, whichever is longer, if a driver under age 18 is apprehended with any detectable alcohol in his body. In addition, he or she can be fined a maximum of $100 and be sentenced to jail for 60 days.

Curfew laws. Preusser et al. (1982) examined the effect of restrictions on nighttime driving, referred to as curfew laws, on motor vehicle crashes of young drivers. They found that such laws are associated with a reduction in crashes of 16-year-old drivers but that there is also a decrease in the proportion of 16-year-olds who obtain a license. Consequently it may be that the observed reduction in crashes is a direct result of the reduction in licensure. New York has the most extensive



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curfew and also shows the greatest reduction in licensure and crashes.

Although the curfew laws in many states are weak, and hence may not be effective, it appears that curfew laws can be a countermeasure against nighttime crashes of young drivers.

It is well established that young drivers get into difficulty at lower levels of alcohol (Carlson, 1972). Thus, restrictions on nighttime driving for young beginning drivers should result in fewer alcohol-related crashes for this age group. Furthermore, it may also be anticipated that for those drivers who do obtain licensure, there may be an opportunity to acquire a higher level of driving skill prior to nighttime driving when alcohol is more likely to be involved. These issues have not been thoroughly addressed in research thus far.

Drinking Age

The increase in the legal age of purchase and/or age of drinking has been shown to be associated with a decrease in alcohol-related motor vehicle injuries and death for young people. Following the ratification of the constitutional amendment reducing the legal age of maturity to 18 years, many states lowered their legal drinking ages accordingly. It was found that decreasing the minimum drinking age was associated with increases in fatal motor vehicle crashes of drivers under 21, especially nighttime and single vehicle crashes (Williams et al., 1974). Furthermore, the lowering of the drinking age increases crashes not only for 18 through 20-year old drivers but also, to some extent, for 15 through 17-year-olds, indicating that there is a spillover effect.

More recently, as several states have increased the legal age of drinking, a number of studies have shown a corresponding decrease in nighttime fatal crashes of young drivers (A. L. Williams et al., 1983;



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National Highway Traffic Administration, 1982; Cook and Tauchen, 1982; Wagenaar, 1983).

Because the legal age of drinking is addressed extensively elsewhere in this conference, it will not be discussed at any length here except as it interacts with licensing age. There is a strong rational basis for gradual introduction of the young driver into the driving population (Waller and Reinfurt, 1973). The crash rate for young drivers is highest in the initial year of driving (usually age 16) and does not asymptote until around age 25. In light of such high crash rates, it makes sense to require that the initial skill acquisition occur in the absence of alcohol. However, it may not make sense to introduce initial drinking skill acquisition at age 21, or any age for that matter, if it may occur in conjunction with driving. In other words, each type of skill should be acquired independently, and they should not be combined until there is reasonable mastery of both.

While abstinence should always be a viable and socially acceptable option for anyone, all the evidence indicates that the majority of adults in our society drink. Furthermore, much of the drinking occurs in public places where there is little or no public transportation, inevitably confounding the problem of separating the two types of skill acquisition. Therefore, there may be a need for greater attention to how drinking skill may be acquired, at whatever age, in a relatively benign environment, that is, one in which driving is not occurring.

Licensing Review

The majority of states require in-person driver license renewal and thus have routine personal contact with all drivers. Such programs offer special opportunities for the identification of alcohol-related problems.

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Possibilities include the questions that are routinely included on the driver license application, an overall evaluation of the applicant by the driver license examiner, and the routine check of available records.

Questions on license application. In many states the driver license application includes questions concerning medical history and conditions, e.g., epilepsy, blackouts, diabetes. Alcoholism is a condition that is often included on the list. If an applicant answers in the affirmative, usually he is required to obtain a certificate from a licensed physician indicating that from a medical standpoint he is fit to drive.

It is recognized that many applicants would not answer such questions truthfully. Nevertheless, if it is clear to the applicant that providing false information constitutes fraudulent application and voids his license, it may discourage falsifying the application. If subsequently it becomes known that false information was supplied, of course the license may be withdrawn.

Evaluation of applicant by examiner. In addition to questions on the license application, information concerning a person's fitness to drive can be provided by the examiner. Driver license examiners can be trained to detect some of the characteristics of drinking problems and can, on the basis of their judgment, request a medical evaluation (National Highway Traffic Safety Administration, 1976).

Because in many states there is considerable turnover in the examiner corps, it is essential that there be an ongoing training program that qualifies new examiners to detect medical or emotional problems. It should be noted that the examiner is not expected to be a diagnostician but rather to identify potential problems and request further evaluation by a qualified professional.

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Records review. Every State has available public records that are potentially useful for identifying drivers with drinking problems. These include state driver history files, the National Driver Register (NDR), and other public records within the state.

State driver records - Most states check their own driver records before issuing a license to an applicant. However, states do not routinely check other state driver records even in those parts of the country where states are small and interstate commuting is common. Even out-of-state transfer applicants may not have their records from the previous states checked. In identifying drinking drivers, there is a need for greater use of available data from existing state records.

National Driver Register - The National Driver Register (NDR) is a compilation of names, provided by the states, of drivers who have had their license suspended or revoked (Kimberling and Tritsch, 1979; National Highway Traffic Safety Administration, 1980a). Many states check these records in relation to license issuance. Unfortunately, most states issue license over the counter and check the NDR only after license issuance. Furthermore, it is frequently the case that they check only out-of-state transfers and thus would not be aware of out-of-state suspensions incurred by their own drivers unless the other state reported it to them.

Because a large proportion of suspensions or revocations of more than 30 days duration are related to drunk driving, the routine use of the NDR is one countermeasure against licensing drivers with drinking problems. Moreover, Hricko (1979) points out that states that license drivers without first checking the NDR may be violating their own statutes prohibiting license issuance to suspended drivers and may thus be vulnerable to administrative liability.

Other public records - Another possibility regarding record checks prior to licensing is that developed by Lacey et al. (1979). Using available public records, they developed predictive models that effectively identify groups that have the highest risk of alcohol-related crashes. Besides information already included in motor vehicle records, they also used public records identifying persons recently divorced and persons recently released from prison. While identification of these high risk groups is possible, the major drawback to the use of the models is the lack of countermeasures of proven effectiveness. Another drawback is that even though the predictive models identified persons at high relative risk, their absolute risk of alcohol crash involvement in the predicted year was still less than one in ten. Nevertheless, the possibility of using public records for identifying high risk groups offers promise for preventing alcohol-related crashes should more effective countermeasures be discovered.

The effectiveness of routine screening for alcohol-related problems prior to licensing, whether through questions on the license application, examiner evaluation, and/or records check, has not been subjected to evaluation.

Driver License Manuals and Tests

Although the major purpose of the licensing process is to evaluate applicants to determine their fitness to drive, the educational function of licensing should not be overlooked. The driver license manual is certainly one of the most widely studied books in existence, especially among young beginning drivers. Although some state manuals are limited to the description of traffic laws, more and more states are using their manuals to communicate valuable information on safe driving practices. Special

sections on alcohol can cover not only state laws and regulations but also important information on how and why alcohol affects driving performance.

In addition to discussing alcohol and driving in the license manual, the license knowledge tests should include questions about alcohol. Such questions will insure that the applicant knows the necessary information and will communicate to the applicant the importance that the State places on the alcohol area.

Per Se Legislation

Driving while intoxicated legislation may require proof that the person was indeed impaired. A BAL of 0.10 percent or higher may be considered presumptive evidence of impairment but may not in itself be sufficient to convict. On the other hand, illegal per se laws hold that a measured BAL of a specified level (usually 0.10 percent or higher) is considered proof of impairment regardless of how well the person may be able to function. In that sense the per se law is analogous to speed limit laws whereby it is illegal to drive on the public highways at 80 miles per hour regardless of how skillful or safe a driver may be at that speed. The enactment of per se laws was designed to facilitate the prosecution of drivers with BAL's at or above the legal level.

Process evaluations have been conducted of per se legislation. According to MacDonald and Wagner (1981), illegal per se laws have increased guilty pleas and convictions, while reducing plea bargaining and prosecution costs, as well as the average BAL's of convictees.

However, following implementation of per se legislation in North Carolina, Loeb (1980) found no increase in conviction rates for drinking drivers with measured BAL's of 0.10 percent or higher (the level stipulated in the per se legislation) because of pleas to a lesser included offense.

Whether per se laws actually deter drunk driving is even more unclear. Whitehead (1977) reviews studies evaluating per se legislation in Great Britain and Canada. Although in both countries there was a reduction in drunk driving following per se legislation, it was not possible to attribute the reduction to the per se laws because there were several countermeasures implemented at once and the entire effort was surrounded by considerable publicity. Within a year or two the amount of drunk driving had returned to pre-legislation levels. Votey came to similar conclusions in reviewing data from Norway and Sweden (1984). Although there was an effect, it was not possible to determine the amount of impact that could be attributed to each of the various components of the total deterrent effort.

Implied Consent

Once sophisticated BAL measurement devices were in general use by enforcement personnel, it was often more advantageous for a drinking driver to refuse the breath test and attempt to prove his innocence in the absence of incriminating objective evidence. To counteract this tendency, states enacted implied consent legislation whereby the driver must submit to a chemical test of intoxication or have his license revoked for a specified period of time. This revocation of license occurs regardless of the outcome of judicial proceedings on the drunk driving charge. Because implied consent laws are not considered criminal in nature, there is no constitutional right to counsel. However, when the licensing authority revokes a license, the offender must be given an opportunity for a hearing (National Highway Traffic Safety Administration, 1980b).

According to Joscelyn and Ruschmann (1981), by 1972 implied consent laws were in effect in all 50 states and the District of Columbia. However, they claim that while implied consent laws were enacted to

facilitate chemical testing, in fact they have resulted in greater restrictions on the testing process. They state that, "...implied consent legislation has created a right to refuse a chemical test that does not exist as a matter of constitutional law" (page 4).

A study of one impact of an implied consent law in Canada was conducted by Smart (1972). He observed the frequency of tavern patrons prior to and following the implementation of a compulsory breath test law. He found that the number of vehicles in the parking lots of taverns declined substantially following the law, but the distribution of BAL's of drivers who continued to drink remained unchanged. He concludes that while the law may have discouraged some people from drinking and driving, there was no evidence that there was a differential impact on light as opposed to heavy drinkers.

There is very little information on the actual impact of these laws on drunk driving arrests or on conviction outcomes. Whether such studies could be conducted at this time would depend upon the availability and quality of the records systems surrounding the period of implementation.

## Specific or Individual-Based Countermeasures

Once a person has been identified as having a drinking/driving problem, licensing authorities have a number of options. These include license revocation, limited driving privileges, medical review, and habitual offender statutes.

### License Revocation

License revocation has been shown to be the most cost/effective countermeasure yet identified for reducing driving by drunk driving offenders (Hagen; 1978; Hagen et al., 1979; Popkin et al., 1983).



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Furthermore, there is evidence that the loss of driver license is viewed by the public as a relatively severe sanction (Little, 1970, 1971; Lowry, 1983).

The revocation of driver license for driving while intoxicated may be mandatory upon conviction or, as is increasingly the case, occur administratively upon evidence that the person committed the offense (e.g., measured BAL of 0.10 percent or higher).

Revocation following conviction. Mandated revocation upon conviction is generally handled by the licensing authority. However, in some jurisdictions courts fail to report routinely to the licensing authority, so that a mandated revocation may not in fact occur. Furthermore, in some states the revocation is effective beginning at the time of conviction, but notice is not sent to the licensing authority until the revocation period is over. Hence neither the licensing authority nor the offender is notified in time for the revocation to take effect.

Even when revocation occurs as intended, there are questions as to its effectiveness. Coppin and Van Oldenbeek (1965) found that approximately one-third of suspended drivers and two-thirds of revoked drivers drove while their suspension or revocation was in effect as indicated by subsequent driving infractions. On the other hand, Kaestner and Speight (1974) report on a survey of suspended Oregon drivers in which over half admitted driving during their suspension but also stated that they drove much more carefully than they ordinarily would. Likewise, in a California study it was found that 65 percent of drivers under license suspension or revocation admitted to driving while under licensing action (Hagen et al., 1980). Most of these drivers also reported that they had reduced their total amount of driving and that they drove more carefully.

Despite the fact that drivers continue to drive while under license suspension, Hagen (1978) found that multiple driving under the influence convictees who had their license suspended had better subsequent records than comparable convictees who were not suspended. Furthermore, the benefits of license suspension continued beyond the expiration of the suspension period.

Evaluations of the effectiveness of suspension compared with treatment have failed to show that treatment is superior to the less expensive suspension process (Hagen et al., 1979; Popkin et al., 1983; Salzberg et al., 1981).

It appears that driver license suspension remains one of the most effective countermeasures against recidivism of convicted drunk drivers.

Administrative revocation. The National Transportation Safety Board (NTSB) describes administrative license revocation has having three major provisions, namely, a provision for license suspension or revocation upon administrative rather than judicial determination that a drunk driving offense has occurred; a provision that the offender receive a notice of the revocation; and a provision for administrative review and hearing procedures (1984). According to English (1982), for many years the Uniform Vehicle Code has included two provisions which would allow for such immediate revocation of license for drunk driving. First, the Code requires license revocation upon conviction for driving under the influence. Second, it also authorizes the Department of Motor Vehicles to suspend the license of a person if there is sufficient evidence that the person committed an offense for which license revocation is required upon conviction. He identified 14 states that included both of the provisions of the Code. However, upon telephone inquiry, he found that only the

District of Columbia was consistently using the Code in that manner. Several other states reported that the provisions were used only rarely and then only in flagrant cases. Other states reported that they did not use the provisions at all. There was fairly widespread feeling that it may be unconstitutional and in any event was not ethical to suspend license before the person had his day in court.

However, administrative revocation is designed to remove licensure prior to the court proceedings and thus to discourage the delays that are so characteristic in such cases. Even [illegible]lish maintains that the innocent-until-proven-guilty concept is deeply embedded in the model law for administrative revocation. He clearly specifies procedures for establishing the evidence, and there is provision for a hearing and eventual judicial review upon request.

Reese has reviewed the constitutional dimensions of the issue and finds no national constitution barrier to the concept (1982). In another paper he discusses issues surrounding administrative procedures involved in the summary suspension of driver license for driving while intoxicated and provides guidelines to the states for designing their administrative procedures to insure they will withstand constitutional scrutiny. He also urges states to check carefully their own state constitutions to insure that any proposed legislation is valid (1983).

Minnesota was the first state to enact administrative license revocation legislation (in 1976) and has had the most experience with it. Reeder (1981) conducted a process evaluation of this early version of the Minnesota legislation and concluded that the law was responsible for an increase in the risk of detection and apprehension for drunk drivers. Nevertheless, there were loopholes in the law that allowed drivers to

postpone adjudication and continue to drive indefinitely without sanction. As a result the law was amended in 1982 to close these loopholes

Under the current legislation the driver license certificate is collected from the offender by the officer at the time of arrest and subsequent refusal to submit to a test of alcohol content or a reading indicating an alcohol content of 0.10 percent or higher. In exchange for the driver license certificate the officer issues a temporary license that is valid for seven days. While administrative review is available at any time during the revocation period, judicial review and hearing are available only if a petition is filed within 30 days of revocation. In any event, the revocation goes into effect and a hearing may not be conducted prior to the effective date of the revocation (National Highway Traffic Safety Administration, 1984).

Lowry (1983) has reviewed and evaluated the revised Minnesota legislation. Citing Rodgers and Cleary (1983), he reports that Minnesota drivers believed that the probability of apprehension and punishment, as well as the severity of punishment, was increased by the revisions in the law. However, Lowry does not indicate how the driver responses compared to the reported perceptions of risk prior to the revisions so that it is not possible to say to what extent, if any, the legislative revisions made a difference in public perception. Furthermore, there are no studies investigating whether administrative revocation of license for drunk driving actually serves as a deterrent to the offense.

So far as the police are concerned, it appears that the use of administrative revocation has a salutary effect upon their activities. Arrest rates increase, presumably because enforcement personnel believe that their efforts will not be sabotaged through judicial maneuvering.



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The Minnesota experience suggests that administrative revocation does not have a major effect upon the number of court-imposed revocations, but the experience in Iowa suggests that court-imposed revocations decrease. To what extent court-imposed sanctions, license revocations and others, are influenced by administrative license revocation is not clear at this time.

The NTSB is sufficiently impressed with the available evidence on administrative license revocation that they have recommended that all states enact such legislation if they have not already done so.

It is clear that license revocation is viewed by drivers as a severe sanction (Lowery, 1983). In addition, it can be invoked with both certainty and celerity, so that it meets all three criteria for effectiveness of a sanction postulated by deterrence theory (Ross, 1982). Since license revocation imposed by the courts is known to be effective in reducing crashes and violations, it is reasonable to assume that administrative revocation would do likewise. In addition, license revocation is relatively inexpensive to implement. The major cost falls upon the offender rather than upon society (as in the case of jail sentences). Thus, on a variety of criteria, administrative revocation appears to be the most promising of the sanctions available to states to reduce driving after drinking.

In considering administrative revocation, it is essential to recognize that there are often discrepancies between the legislative intent and the actual practice (J. L. Williams et al., 1983). Thus it is important that in any evaluation of administrative license removal, or for that matter any other drunk driving sanction, some effort be focused on the issue of whether or not the sanction being evaluated is actually being applied.

Limited Driving Privileges

Variously known as occupational license, hardship license, conditional

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license, or restricted license, the limited driving privilege is issued when a license has been suspended or revoked. English (1977) has described four conceptual approaches to limited licenses that differ in the reasons given for issuing the license.

First is the hardship approach, whereby the applicant must show that loss of license would create undue hardship. In some states the person must show evidence that loss of license would create occupational hardship, while in other states it is only necessary to demonstrate hardship of any kind. Usually such a license would carry with it certain restrictions.

Second is the restriction approach which does not require demonstration of hardship but rather assumes that hardship would result if no driving whatsoever were allowed. This license would also carry restrictions, presumably allowing driving only to the extent necessary to relieve the hardship.

Third is the professional driver approach which assumes that because professional drivers have such high exposure they are naturally going to accumulate more infractions and should therefore be given special consideration. Eligibility for this license may be based on the number of miles a person drives each year, with high mileage drivers being allowed more points before loss of license. In other states the eligibility is automatic if the person holds a chauffeur license. In some instances the limitation is to commercial or business driving only. In other instances no such restriction is imposed.

Finally, there is a rehabilitative approach which allows driving to occur only if the person complies with certain conditions such as undergoing educational or rehabilitative measures.

One reason for the hardship license is the evidence of the extent to

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which license suspension or revocation is violated. A second reason for this type of restricted license is that courts, and especially juries, are reluctant to impose severe penalties if they are likely to result in total loss of license. If license revocation is mandatory and there is no option for a limited driving privilege, the charge may be reduced through plea bargaining or the offender may be acquitted.

At one time North Carolina required mandatory one year-license suspension with no limited privilege upon first conviction of driving under the influence of alcohol. Subsequently the law was amended to allow a limited driving privilege at the discretion of the court. Johns and Pascarella (1971) found that the change led to an increase in convictions for drunk driving and a decrease in reduced charges. Evaluation of the impact found that drivers who were given the limited driving privilege had more convictions and crashes than similar drivers who had had their license revoked without relief prior to the amendment. However, the limited license drivers had no more crashes or convictions than the general driving population, but more of their convictions were for drunk driving..

It is difficult to conduct an in-depth evaluation of the limited license concept because the specifics of the limitations are not readily accessible. Driver records may show that a limited driving privilege has been issued, but the kinds of limitations are not shown. Furthermore, even when courts report to the licensing authority on the issuance of such driving privileges, the privilege may be amended by the court subsequently, e.g., if the person changes jobs and his driving needs change accordingly. The licensing authority is unlikely to be aware of such changes.

To determine which limitations, if any, are most effective will require a records system that does not exist at the present time.

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Medical Review

Most states have some system for medical review of drivers with medical problems that have been brought to the attention of the licensing authority. The review is to determine the person's fitness, from a medical standpoint, to continue to drive (or to resume driving). Alcohol-related problems constitute a significant proportion of the cases that are brought to the attention of the medical review program.

In North Carolina over half of all such cases are alcohol/drug related, with the vast majority of these being alcohol rather than some other drug (Popkin et al., 1982). Furthermore, a significant proportion of the drivers in the medical review system for other medical conditions, e.g., diabetes, physical impairment, mental disability, also have alcohol problems, as indicated by DWI arrests prior to or subsequent to their medical classification. Of particular concern is the finding that chauffeur licensees who were identified as being in the medical review program had higher rates of subsequent alcohol-related crashes than did medically restricted operator licensees (Waller and Li, 1979).

Evaluation of the North Carolina Medical Evaluation System found that while drivers in most medical disability categories showed improvement subsequent to entering the program, drivers who were in the system because of alcohol/drug problems had significantly worse problems after they had come to the attention of the medical program. However, to some extent these findings may be an artifact. Persons with alcohol-related problems generally come to the attention of the medical review program at the conclusion of their license revocation or suspension when they are seeking license reinstatement. Hence, the pre-review period is characterized by license revocation and presumably reduced driving, while post-review may



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include legal licensure to drive.

The medical evaluation program does not provide any treatment but rather simply makes a determination of whether and to what extent the driver is fit from a medical standpoint to drive. The actual licensing decision remains with the licensing authority, but in most instances the medical advice is heeded.

Information as to the specific kinds of restrictions that may be placed on an individual because of a medical problem is not readily retrievable, and thus there are no data available on the effectiveness of any specific restrictions. However, physicians working with the medical evaluation program maintain that drivers with alcohol problems who are required to submit to an annual medical review maintain clean records. However, such drivers often complain bitterly about the continued surveillance when they have had no problems for periods extending into years. Yet the medical evaluation physicians claim that when such drivers are removed from the surveillance requirement, almost without exception they recidivate within a year. These observations are clinical in nature and have not been subjected to objective scrutiny. Nevertheless, they suggest that the continued relationship with the medical evaluation program may assist the driver with an alcohol problem in avoiding additional alcohol-related infractions.

Habitual Offender Statutes

Virginia was the first state to enact a habitual offender (HO) statute, but within a few years a number of other states had followed suit. Such statutes came about in an effort to deal with the chronic offender. Generally the laws provide that upon the accumulation of a number of moving traffic offenses of a relatively routine nature, e.g., speeding, or, upon

the accumulation of a much smaller number of traffic offenses of a much more serious nature, e.g., drunk driving, the offender may be certified by the court as an habitual offender and license removed for an extended period of time. Noncompliance with HO sanctions may result in incarceration.

At least three evaluations have been conducted of the effectiveness of these laws in deterring recidivism. The first, in North Carolina, found that almost all (98%) persons who became eligible for HO status do so as a result of the accumulation of a small number of major violations, mostly drunk driving (Li and Waller, 1976). A later study in Oregon found that 99.5 percent of their HO's became eligible as a result of a small number of major offenses, although there is no identification of what proportion were alcohol-related (Kaestner and Hawes, 1977). A subsequent study in the state of Washington also found that the majority of HO's resulted because of a small number of major violations (94%, Salzberg et al., 1981), and 87 percent of the offenders had at least one drunk driving conviction on their records. It appears that HO statutes are dealing primarily with drinking driver problems.

In North Carolina the Division of Motor Vehicles routinely computer checked records to identify those who had reached the level for HO eligibility. These records were then manually reviewed to insure that indeed the qualifications for HO status had been met, after which the information was forwarded to the appropriate courts. What happened subsequently was dependent upon the prosecutor. It was found that in rural areas the cases were usually processed and in most instances the person was certified as an HO. Upon notification by the court, the licensing authority revoked licensure. However, in urban areas cases were left

pending, and, as one prosecutor said, they would get to them once they had prosecuted the murders, rapes, assaults, burglaries, etc.

Evaluation of the subsequent records of persons who were processed through the court compared to those who were not found no significant differences in driving performance. It was therefore concluded that the time and effort spent on the program might better be directed elsewhere, and the State subsequently revoked the HO statute.

The Oregon study, while similar, included one important variation, namely, for purposes of the study some persons were identified when they were one infraction short of HO status and were sent a warning letter informing them of the consequences should another infraction be incurred. It was found that this procedure prolonged the interval to the next major traffic violation. Furthermore, the authors report a lower rate of subsequent crashes for drivers who were revoked than for drivers who should have been revoked but whose cases were kept pending in the courts. Because the relative cost of a warning letter is small, it appears that it may be worthwhile to use this approach to delay recidivism for drivers who are on the verge of reaching HO status. It would be desirable to know how many of these drivers are in that position as a result of alcohol offenses and whether the warning letter treatment is as effective with the alcohol group.

In the Washington state study comparisons were made among five groups, namely, those whose license was revoked; those whose revocation was stayed because the court determined they had an alcohol problem and had undertaken an alcoholism treatment program; offenders who were selected for HO processing but for whom no further action was taken; offenders whom the court could not locate; and, offenders who had the court proceedings



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dismissed. On the basis of subsequent records it was found that the revoked group had significantly fewer moving violations (less than half as many) as the other groups and about half the crash rate. However, there were no differences among groups in subsequent drunk driving convictions.

This study, like those in California (Hagen et al., 1978) and North Carolina (Popkin et al., 1983), found that license revocation was superior to alcoholism treatment programs.

It appears that the potential effectiveness of HO statutes remains unclear. Although there are slight variations in the specifics of the laws in the three states in which evaluation have been conducted, the similarities suggest that the populations are probably comparable. Perhaps the use of the warning letter to delay the critical infraction may be the most promising approach. In addition, there remains the possibility that license revocation itself is effective for many of these drivers.

## Research Opportunities

The research opportunities in this area are many. Because most of the countermeasures described are in some way related to the driver license program, there is opportunity to have an impact on the entire driving population, including the drinking driver.

So far as general or societal-oriented countermeasures, perhaps the greatest research need is a careful evaluation of the interaction among driver education requirements, minimal driver age requirements, special requirements for young drivers (e.g., curfew laws), and minimum drinking age requirements with the goal of identifying the optimal combination. If most adults are going to drink, there is a need to develop social and administrative policies that enable young people to acquire both driving

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skill and drinking skill in relatively benign environments and in isolation from each other. There is a further need to provide young people with greater opportunity to abstain from alcohol entirely if they so choose.

A second major research opportunity is the investigation of how the licensing process itself may be used to greater advantage both to educate the driving public regarding drinking and driving and to detect alcohol-related problems. Because licensing is the only state program that has access to all drivers, it has perhaps the greatest potential for broad-based preventive efforts.

So far as specific or individual-based countermeasures are concerned, clearly license revocation appears to offer the greatest promise. Whether and to what extent administrative revocation is effective in preventing recidivism is not yet known, but all the available information suggests that it should be at least as effective as revocation triggered by judicial action. There is the further question of whether administrative revocation of license has a deterrent effect in addition to any impact it may have on recidivism. Of course, in order to serve as a deterrent, it is necessary that the general driving population be aware of how it operates. No systematic studies have been conducted of how publicizing of administrative revocation laws may discourage drinking and driving.

The concept of limited driving privileges also needs to be investigated further. Of particular importance is to discover which restrictions, if any, appear to be effective in reducing drunk driving. Anecdotal evidence from physicians on medical advisory boards suggests that restricting drivers with alcohol problems to driving on weekdays only from 6 am to 8 pm seems to be effective. However, there have been no carefully controlled studies in this area.



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Although the majority of cases coming to the attention of medical review boards are alcohol-related, this program has not been explored to determine its potential in controlling drinking and driving. Clearly it is a program that cannot be expected to have a general deterrent effect, but because of its potential for long term monitoring and the imposition of conditions and restrictions with the corresponding threat of loss of license for failure to comply, it at least offers some promise of greater control over this high risk population.

## Conclusion

From a public health standpoint it is preferable to invoke countermeasures that prevent the occurrence of the undesired behavior rather than countermeasures that deal with the offender after the fact. Thus, measures such as minimum driving age and separation of early drinking from early driving are preferable to habitual offender statutes.

However, preventive countermeasures must go far beyond what can be accomplished by licensing agencies, medical review boards, and so forth. By the time a person is old enough to drive, for at least 16 years he or she has been subjected to a wide variety of influences, many of which strongly encourage drinking and driving. It is futile to develop countermeasure programs while remaining blind to the larger context in which they operate. If we hope to achieve lasting deterrent effects upon drinking and driving, ultimately we must examine the larger societal context in which we rear our children and youth and come to grips with those influences and social policies that counter our efforts to reduce drunk driving.



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